

Appl. No. : 09/993,874  
Filed : November 14, 2001

**AMENDMENTS TO THE CLAIMS**

1 (previously presented): An isolated nucleic acid molecule encoding a green light emitting luciferase which hybridizes under high stringency conditions to a nucleotide sequence selected from the group consisting of:

- a) SEQ ID NO:1; and
- b) the complement of SEQ ID NO:1,

wherein said high stringency conditions correspond to washing in prewarmed (68°C) solution containing 0.1xSSC/0.1% SDS for 15 min at 68°C,

wherein the encoded green light emitting luciferase emits green bioluminescence having a maximum  $\lambda$  of approximately 549 nm when expressed in E coli.

2-6 (canceled)

7 (previously presented): A vector comprising the isolated nucleic acid molecule as defined in Claim 1.

8 (previously presented): A recombinant host cell comprising the vector as defined in Claim 7.

9-11 (canceled)

12 (new): An isolated nucleic acid molecule encoding a green light emitting luciferase which hybridizes under high stringency conditions to a nucleotide sequence selected from the group consisting of:

- a) SEQ ID NO:1; and
- b) the complement of SEQ ID NO:1,

wherein said high stringency conditions correspond to washing in prewarmed (68°C) solution containing 0.1xSSC/0.1% SDS for 15 min at 68°C,

wherein the encoded green light emitting luciferase emits green bioluminescence having a maximum  $\lambda$  of 549 nm when expressed in E coli as measured 3 min after the luciferase interacts with D-luciferin in 0.1 M Tris-HCl buffer at pH 8.0, using a spectrofluorometer with an excitation lamp shut down.

13 (new): A vector comprising the isolated nucleic acid molecule as defined in Claim 12.

14 (new): A recombinant host cell comprising the vector as defined in Claim 13.